

Fabrication of High Resistivity Structures Using Focused Ion Beams

Abstract

The present invention provides a method for creating microscopic high resistivity structures on a target by directing a focused ion beam toward an impact point on the target and directing a precursor gas toward the impact point, the ion beam causing the precursor gas to decompose and thereby deposit a structure exhibiting high resistivity onto the target. The precursor gas preferably comprises a first compound that would form a conductive layer and a second compound that would form an insulating layer if each of the first and second compounds were applied alone in the presence of the ion beam.